

10031028-1

1. (Currently Amended) A detector comprising:
an amplifier, connected between the power supply and ground, including a current detector generating a current [first detected] signal, having an amplifier output;
voltage detector, interposing the amplifier output and ground, generating a voltage [second detected] signal;
a matching circuit, connected to the amplifier output;
a load, interposing the matching circuit and ground; [[and]]
an analyzer, receiving the current and voltage [first and second detected] signals, generating an analyzer output that reflects a power parameter, including
a multiplication node, receiving one of the current and voltage signals,
generating a scaled signal, and
an arithmetic node, receiving the scaled signal and the other of the current
and voltage signals, generating the output that reflects the power parameter; and
a gain control receiving the analyzer output, electrically connected to the
amplifier.

2. (Cancelled)

3. (Cancelled).

4. (Currently Amended) A detector, as defined in claim [[3]] 1, wherein the power parameter is total power.

5. (Currently Amended) A detector, as defined in claim [[3]] 1, wherein the power parameter is the amplitude of total power.

6. (Currently Amended) A detector, as defined in claim [[3]] 1, the analyzer comprising a multiplication node, receiving the ^{current} ~~first~~ and ^{voltage} ~~second~~ detected signals, generating the ^{analyzer} ~~output~~ that reflects the power parameter.

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4/14/05

7-18. (Cancelled)